

## REMARKS

Claims 34-58 and 65-103 are pending. Claims 34-58, 65-70, 74, and 79-103 stand withdrawn from further consideration as being drawn to a non-elected species. Upon allowance of a generic claim, Applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141.

Claims 71, 72, and 75 have been amended. Support for the claim amendments can be found throughout the application, including the originally-filed claims. Importantly, no new matter has been added to the claims. The amendment to the claims should not be construed to be an acquiescence to any of the rejections. The amendments to the claims are being made solely to expedite the prosecution of the above-identified application. The Applicant reserves the right to further prosecute the same or similar claims in subsequent patent applications claiming the benefit of priority to the instant application. 35 USC § 120.

The specification has been amended to remove confusion over how certain abbreviations and variables are defined.

### **Objection to the Disclosure**

The disclosure is objected to by the Examiner for being unclear regarding the abbreviations PPCS, BPCS, TPPCS, and BTCS, and the definitions of certain variables in the Definition section of the specification.

The Applicants have amended the specification to include the full chemical names of the compounds abbreviated as PPCS, BPCS, TPPCS, and BTCS. These abbreviations are art recognized and the addition of the full names in the specification is done for clarity. Importantly, no new matter has been added. The Applicants have also amended the specification to clarify what definition is being referred to for variables R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>41</sub>, and alkyls.

The Applicants respectfully submit that the disclosure is clear with respect to its abbreviations and definitions and request the withdrawal of the objection by the Examiner.

**Rejection of Claims Under 35 U.S.C. § 112, 1~~¶~~**

Claims 71-73 and 75-78 stand rejected under 35 U.S.C. § 112, 1~~¶~~, based on the Examiner's contention that although they are enabled for the examples disclosed, they are not enabled for the genus of compounds as represented by formulas 2 and 3. The Applicants respectfully traverse this rejection.

The Applicants respectfully submit that disclosure of zosteric acid, octyl and methyl sulfate, 4-*t*-pentyl phenyl chlorosulfate (PPCS or TPPS)), 4-*t*-butyl phenyl chlorosulfate (BPCS), and BTCS (*t*-butyl chlorosulfate) enables one of ordinary skill in the art of chemistry to prepare all the members of the claimed genus. Namely, the court in *The Regents of the University of California v. Eli Lilly & Co.*, 119 F. 3d at 1569, 43 U.S.P.Q.2d at 1406, indicated that written description is analogous to enablement of a genus, wherein recitation of a representative number of species within a genus is sufficient to enable the entire genus.

The Examiner contends that disclosure of zosteric acid, octyl sulfate, methyl sulfate, PPCS or TPPCS, BPCS, and BTCS is not a representative amount and that it would require undue experimentation to determine what compounds and what coating compositions would meet the limitations of the present claims. The Applicants respectfully disagree with this contention. Initially, the Applicants respectfully assert that where a specification contains considerable direction and guidance, there is a high level of skill in the art at the time the application was filed, and the methods needed to practice the invention are well known in the art, undue experimentation is not required to practice the claimed invention. *In re Wands*, 858 F.2d 731, 740, 8 USPQ2d 1400, 1406 (Fed. Cir. 1988). With respect to the use of the genus of compounds of general structures 2 and 3 in the claimed coatings, the Applicants respectfully contend that the instant application provides considerable direction and guidance because it contains several detailed and distinct examples of the claimed coatings. Further, the Applicants respectfully assert that the level of skill in the relevant arts is high because one of ordinary skill in the relevant arts, e.g., synthetic organic chemistry, has a Ph.D. in the art. Accordingly, the Applicants respectfully assert that that undue experimentation is not required to practice the claimed invention. *See id.* Critically, the Applicants respectfully point out that it is improper for the Examiner to conclude that a disclosure is not enabling based on an analysis of only one of the

above factors while ignoring one or more of the others; in other words, the Examiner's analysis must consider all the evidence related to each of the factors, and any conclusion of lack of enablement must be based on the evidence as a whole. MPEP § 2164.01(a).

Furthermore, the Applicants respectfully point out that the *quantity* of experimentation needed to be performed by one skilled in the art is only one factor involved in determining whether undue experimentation is required to make and use the invention. *See In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) (citing *In re Angstadt*, 537 F.2d 489, 502-04, 190 USPQ 214, 217-19 (CCPA 1976)) (concluding that the test for undue experimentation is not merely quantitative because a considerable amount of experimentation is permissible if it is merely routine or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed). *See also In re Colianni*, 561 F.2d 220, 224, 195 USPQ 150, 153 (CCPA 1977) (stating that extended experimentation may not be undue if the skilled artisan is given sufficient direction or guidance). Moreover, because the time and difficulty of any required experimentation is *not* determinative if it is merely routine experimentation, and methods of testing the effectiveness of the coatings of the present invention are disclosed, the Applicants respectfully assert that undue experimentation would not be required to practice the claimed invention. MPEP § 2164.06. Therefore, the Applicants respectfully submit that the objections raised by the Examiner regarding the number of examples of the invention when one considers the terms “coating”, “effective amount”, “plant”, “plant pathogens”, and formulas 2 and 3, are still just a matter of routine experimentation to one of ordinary skill in the art given the guidance and examples of the specification, not undue experimentation.

Accordingly, withdrawal of the rejections under 35 U.S.C. 112, first paragraph, is respectfully requested.

#### **Rejection of Claims Under 35 U.S.C. § 112, 2<sup>nd</sup>**

Claims 75-78 stand rejected under 35 U.S.C. § 112, 2<sup>nd</sup>, for being indefinite based on the Examiner's contention that it is not clear how dependent claims can claim a factor of reduction that is different from that factor claimed in the independent claim. The Applicants respectfully traverse this rejection.

Claim 75, from which claims 76-78 depend, has been amended to claim a range of about 4 to about 15 as the reduction factor. Claims 76-78 are, therefore, proper dependent claims narrowing the scope of independent claim 75.

Accordingly, the Applicants respectfully request the withdrawal of the 35 U.S.C. 112, 2<sup>nd</sup>, rejection of the claims.

**Rejection of Claims Under 35 U.S.C. § 102(a) or (b) or both**

The Examiner has made several 35 U.S.C. § 102(a) or (b) or both rejection of claims 71, 72, and 75-78. The rejections are addressed below according to the reference cited.

**Zimmerman et al. (U.S. Patent No. 5,384,176)**

Claims 71, 72, and 75-78 stand rejected under 35 U.S.C. § 102(b) based on the Examiner's contention that they are anticipated by Zimmerman et al. The Applicants respectfully traverse this rejection. Independent claims 71 and 75 have been amended to define the allowed substituents on Z in formulas 2 and 3 when Z is substituted. The substituents do not include carbonyl groups (as in vanillic acid sulfate cited by the Examiner) or alkenyl groups (as in zosteric acid, sulfoxy cinnamic acid, sulfoxy ferulic acid...etc.). To anticipate a claim, a reference must disclose each and every limitation of that claim. Because Zimmerman et al. does not disclose compounds of formulas 2 and 3 as amended, the Applicants respectfully submit that Zimmerman does not anticipate claims 71, 72, and 75-78.

**Octyl Sulfate (Stepan Chemical Company)**

Claims 75-78 stand rejected under 35 U.S.C. § 102(a) or (b) based on the Examiner's contention that they are anticipated by the Applicants' own specification which teaches an aqueous octyl sulfate solution. The Applicants respectfully traverse this rejection. Claim 75 has been amended to limit compounds of formula 3 when Z is an unbranched alkyl to alkyl groups of 2-7 carbon atoms. Because octyl sulfate (8 carbon atoms) is beyond the scope of compounds covered by claim 75 as amended, the Applicants respectfully submit that the Applicants' own disclosure does not disclose each and every limitation of claims 75-78.

*The Merck Index, 10<sup>th</sup> Edition (1983), pp. 876-877*

Claims 75-78 stand rejected under 35 U.S.C. § 102(b) based on the Examiner's contention that they are anticipated by the Merck Index, 10<sup>th</sup> edition, which discloses a methyl sulfate solution. The Applicants respectfully traverse this rejection. Claim 75 has been amended to limit the compounds of formula 3 when Z is an unbranched alkyl to alkyl groups of 2-7 carbon atoms. Because methyl sulfate (1 carbon atom) is beyond the scope of compounds covered by claim 75 as amended, the Applicants respectfully submit that the Merck Index does not disclose each and every limitation of claims 75-78.

*Walworth (U.S. Patent No. 4,053,610) or Hafeli (U.S. Patent No. 4,087,597)*

Claims 75-78 stand rejected under 35 U.S.C. § 102(b) based on the Examiner's contention that they are anticipated by Walworth or Hafeli, both of which disclose a solution of methyl sulfate. For the same reasons stated above under the Merck Index heading, the Applicants respectfully traverse this rejection. Specifically, claim 75 has been amended to limit the compounds of formula 3 when Z is an unbranched alkyl to alkyl groups of 2-7 carbon atoms. Because methyl sulfate (1 carbon atom) is beyond the scope of compounds covered by claim 75 as amended, the Applicants respectfully submit that neither Walworth nor Hafeli discloses each and every limitation of claims 75-78.

Accordingly, the Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(b) or § 102(a) or both of claims 71, 72, and 75-78.

***Claim Rejections Based on the Judicially-Created  
Doctrine of Obviousness-Type Double Patenting***

Claims 71-73 and 75-78 stand provisionally rejected under the judicially-created doctrine of obviousness-type double patenting, based on the Examiner's contention that they are not patentably distinct from claims 39-64, 66-74, and 89-91 of copending U.S. Patent Application No. 09/405,269 (the "'269 application"). The Applicants respectfully request that the Examiner hold in abeyance all obviousness-type double patenting rejections based on the '269 application until allowable subject matter is indicated, at which point the Applicants will file a terminal disclaimer if necessary.

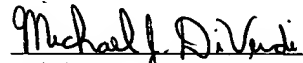
### Fees

The Applicants believe they have provided for any required fees in connection with the filing of this paper. Nevertheless, the Director is hereby authorized to charge any additional required fee to our Deposit Account, **06-1448**.

### **Conclusion**

In view of the above amendments and remarks, the Applicants believe that the pending claims are in condition for allowance. If a telephone conversation with Applicant's Attorney or Agent would expedite prosecution of the application, the Examiner is urged to contact the undersigned.

Respectfully submitted,  
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